

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 09/554, 531 B  
Source: IFW/6  
Date Processed by STIC: 10/30/2006

# ***ENTERED***



IFW16

## RAW SEQUENCE LISTING

DATE: 10/30/2006

PATENT APPLICATION: US/09/554,531B

TIME: 16:20:00

Input Set : E:\238 087US Amended Seq Listing (25-Oct-06).txt

Output Set: N:\CRF4\10272006\I554531B.raw

3 <110> APPLICANT: BEELEY, NIGEL ROBERT ARNOLD  
 4 PRICKETT, KATHRYN S.  
 6 <120> TITLE OF INVENTION: NOVEL EXENDIN AGONIST COMPOUNDS  
 8 <130> FILE REFERENCE: 238/087 US  
 10 <140> CURRENT APPLICATION NUMBER: 09/554,531B  
 11 <141> CURRENT FILING DATE: 2000-08-08  
 13 <150> PRIOR APPLICATION NUMBER: PCT/US98/24273  
 14 <151> PRIOR FILING DATE: 1998-11-13  
 16 <150> PRIOR APPLICATION NUMBER: 60/066,029  
 17 <151> PRIOR FILING DATE: 1997-11-14  
 19 <160> NUMBER OF SEQ ID NOS: 110  
 21 <170> SOFTWARE: PatentIn Ver. 2.1  
 23 <210> SEQ ID NO: 1  
 24 <211> LENGTH: 39  
 25 <212> TYPE: PRT  
 26 <213> ORGANISM: Heloderma horridum  
 28 <220> FEATURE:  
 29 <223> OTHER INFORMATION: c-term amidation  
 31 <400> SEQUENCE: 1  
 32 His Ser Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu  
 33 1 5 10 15  
 35 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser  
 36 20 25 30  
 38 Ser Gly Ala Pro Pro Pro Ser  
 39 35  
 42 <210> SEQ ID NO: 2  
 43 <211> LENGTH: 39  
 44 <212> TYPE: PRT  
 45 <213> ORGANISM: Heloderma suspectum  
 47 <220> FEATURE:  
 48 <223> OTHER INFORMATION: c-term amidation  
 50 <400> SEQUENCE: 2  
 51 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu  
 52 1 5 10 15  
 54 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser  
 55 20 25 30  
 57 Ser Gly Ala Pro Pro Pro Ser  
 58 35  
 61 <210> SEQ ID NO: 3  
 62 <211> LENGTH: 30  
 63 <212> TYPE: PRT  
 64 <213> ORGANISM: Homo sapiens  
 66 <220> FEATURE:

CPg-6)

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67 <223> OTHER INFORMATION: c-term amidation
69 <400> SEQUENCE: 3
70 His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
71   1           5           10           15
73 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
74   20           25           30
77 <210> SEQ ID NO: 4
78 <211> LENGTH: 39
79 <212> TYPE: PRT
80 <213> ORGANISM: Artificial Sequence
82 <220> FEATURE:
83 <223> OTHER INFORMATION: Description of Artificial Sequence: Exendin agonist
84   formula peptide
86 <220> FEATURE:
87 <223> OTHER INFORMATION: c-term may be amidated
89 <220> FEATURE:
90 <221> NAME/KEY: MOD_RES
91 <222> LOCATION: (1)
92 <223> OTHER INFORMATION: His, Arg, Tyr, Ala, Norval, Val or Norleu
94 <220> FEATURE:
95 <221> NAME/KEY: MOD_RES
96 <222> LOCATION: (2)
97 <223> OTHER INFORMATION: Ser, Gly, Ala or Thr
99 <220> FEATURE:
100 <221> NAME/KEY: MOD_RES
101 <222> LOCATION: (3)
102 <223> OTHER INFORMATION: Ala, Asp or Glu
104 <220> FEATURE:
105 <221> NAME/KEY: MOD_RES
106 <222> LOCATION: (4)
107 <223> OTHER INFORMATION: Ala, Norval, Val, Norleu or Gly
109 <220> FEATURE:
110 <221> NAME/KEY: MOD_RES
111 <222> LOCATION: (5)
112 <223> OTHER INFORMATION: Ala or Thr
114 <220> FEATURE:
115 <221> NAME/KEY: MOD_RES
116 <222> LOCATION: (6)
117 <223> OTHER INFORMATION: Ala, Phe, Tyr or naphthylalanine
119 <220> FEATURE:
120 <221> NAME/KEY: MOD_RES
121 <222> LOCATION: (7)
122 <223> OTHER INFORMATION: Thr or Ser
124 <220> FEATURE:
125 <221> NAME/KEY: MOD_RES
126 <222> LOCATION: (8)
127 <223> OTHER INFORMATION: Ala, Ser or Thr
129 <220> FEATURE:
130 <221> NAME/KEY: MOD_RES

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131 <222> LOCATION: (9)  
132 <223> OTHER INFORMATION: Ala, Norval, Val, Norleu, Asp or Glu  
134 <220> FEATURE:  
135 <221> NAME/KEY: MOD\_RES  
136 <222> LOCATION: (10)  
137 <223> OTHER INFORMATION: Ala, Leu, Ile, Val, pentylglycine or Met  
139 <220> FEATURE:  
140 <221> NAME/KEY: MOD\_RES  
141 <222> LOCATION: (11)  
142 <223> OTHER INFORMATION: Ala or Ser  
144 <220> FEATURE:  
145 <221> NAME/KEY: MOD\_RES  
146 <222> LOCATION: (12)  
147 <223> OTHER INFORMATION: Ala or Lys  
149 <220> FEATURE:  
150 <221> NAME/KEY: MOD\_RES  
151 <222> LOCATION: (13)  
152 <223> OTHER INFORMATION: Ala or Gln  
154 <220> FEATURE:  
155 <221> NAME/KEY: MOD\_RES  
156 <222> LOCATION: (14)  
157 <223> OTHER INFORMATION: Ala, Leu, Ile, pentylglycine, Val or Met  
159 <220> FEATURE:  
160 <221> NAME/KEY: MOD\_RES  
161 <222> LOCATION: (15)  
162 <223> OTHER INFORMATION: Ala or Glu  
164 <220> FEATURE:  
165 <221> NAME/KEY: MOD\_RES  
166 <222> LOCATION: (16)  
167 <223> OTHER INFORMATION: Ala or Glu  
169 <220> FEATURE:  
170 <221> NAME/KEY: MOD\_RES  
171 <222> LOCATION: (17)  
172 <223> OTHER INFORMATION: Ala or Glu  
174 <220> FEATURE:  
175 <221> NAME/KEY: MOD\_RES  
176 <222> LOCATION: (19)  
177 <223> OTHER INFORMATION: Ala or Val  
179 <220> FEATURE:  
180 <221> NAME/KEY: MOD\_RES  
181 <222> LOCATION: (20)  
182 <223> OTHER INFORMATION: Ala or Arg  
184 <220> FEATURE:  
185 <221> NAME/KEY: MOD\_RES  
186 <222> LOCATION: (21)  
187 <223> OTHER INFORMATION: Ala or Leu  
189 <220> FEATURE:  
190 <221> NAME/KEY: MOD\_RES  
191 <222> LOCATION: (22)

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192 <223> OTHER INFORMATION: Phe, Tyr or naphthylalanine  
194 <220> FEATURE:  
195 <221> NAME/KEY: MOD\_RES  
196 <222> LOCATION: (23)  
197 <223> OTHER INFORMATION: Ile, Val, Leu, pentylglycine, tert-butylglycine or Met  
199 <220> FEATURE:  
200 <221> NAME/KEY: MOD\_RES  
201 <222> LOCATION: (24)  
202 <223> OTHER INFORMATION: Ala, Glu or Asp  
204 <220> FEATURE:  
205 <221> NAME/KEY: MOD\_RES  
206 <222> LOCATION: (25)  
207 <223> OTHER INFORMATION: Ala, Trp, Phe, Tyr or naphthylalanine  
209 <220> FEATURE:  
210 <221> NAME/KEY: MOD\_RES  
211 <222> LOCATION: (26)  
212 <223> OTHER INFORMATION: Ala or Leu  
214 <220> FEATURE:  
215 <221> NAME/KEY: MOD\_RES  
216 <222> LOCATION: (27)  
217 <223> OTHER INFORMATION: Ala or Lys  
219 <220> FEATURE:  
220 <221> NAME/KEY: MOD\_RES  
221 <222> LOCATION: (28)  
222 <223> OTHER INFORMATION: Ala or Asn  
224 <220> FEATURE:  
225 <221> NAME/KEY: MOD\_RES  
226 <222> LOCATION: (31)  
227 <223> OTHER INFORMATION: Pro, homoproline, 3Hyp, 4Hyp, thioproline, N-alkylglycine  
228 N-alkylpentylglycine or N-alkylalanine  
230 <220> FEATURE:  
231 <221> NAME/KEY: MOD\_RES  
232 <222> LOCATION: (36)..(38)  
233 <223> OTHER INFORMATION: Pro, homoproline, 3Hyp, 4Hyp, thioproline, N-alkylglycine  
234 N-alkylpentylglycine or N-alkylalanine  
236 <220> FEATURE:  
237 <221> NAME/KEY: MOD\_RES  
238 <222> LOCATION: (39)  
239 <223> OTHER INFORMATION: Ser or Tyr  
242 <220> FEATURE:  
243 <223> OTHER INFORMATION: provided that no more than three of Xaa3, Xaa4, Xaa5, Xaa6,  
244 Xaa8, Xaa9, Xaa10, Xaa11, Xaa12, Xaa13, Xaa14, Xaa15,  
245 Xaa16, Xaa17, Xaa19, Xaa20, Xaa21, Xaa24, Xaa25, Xaa26,  
246 Xaa27 and Xaa28 are Ala  
248 <220> FEATURE:  
249 <223> OTHER INFORMATION: provided also that, if Xaa1 is His, Arg or Tyr, then at  
250 least one of Xaa3, Xaa4 and Xaa9 is Ala  
252 <220> FEATURE:  
253 <223> OTHER INFORMATION: this peptide may encompass 28-39 residues, wherein residues

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254      1-28 are constant and residues 29-39 may vary in length
255      according to the specification as filed; see specification for
256      detailed description of substitutions and preferred embodiments
258 <400> SEQUENCE: 4
W--> 259 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
260      1          5          10          15
262 Xaa Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gly Xaa Ser
263      20          25          30
265 Ser Gly Ala Xaa Xaa Xaa Xaa
266      35
268 <210> SEQ ID NO: 5
269 <211> LENGTH: 28
270 <212> TYPE: PRT
271 <213> ORGANISM: Artificial Sequence
273 <220> FEATURE:
274 <223> OTHER INFORMATION: Description of Artificial Sequence: Exendin agonist
276 <220> FEATURE:
277 <223> OTHER INFORMATION: c-term amidation
279 <400> SEQUENCE: 5
280 Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
281      1          5          10          15
283 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
284      20          25
287 <210> SEQ ID NO: 6
288 <211> LENGTH: 28
289 <212> TYPE: PRT
290 <213> ORGANISM: Artificial Sequence
292 <220> FEATURE:
293 <223> OTHER INFORMATION: Description of Artificial Sequence: Exendin agonist
295 <220> FEATURE:
296 <223> OTHER INFORMATION: c-term amidation
298 <400> SEQUENCE: 6
299 His Gly Ala Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
300      1          5          10          15
302 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
303      20          25
306 <210> SEQ ID NO: 7
307 <211> LENGTH: 28
308 <212> TYPE: PRT
309 <213> ORGANISM: Artificial Sequence
311 <220> FEATURE:
312 <223> OTHER INFORMATION: Description of Artificial Sequence: Exendin agonist
314 <220> FEATURE:
315 <223> OTHER INFORMATION: c-term amidation
317 <400> SEQUENCE: 7
318 His Gly Glu Ala Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
319      1          5          10          15
321 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
322      20          25

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RAW SEQUENCE LISTING ERROR SUMMARY      DATE: 10/30/2006  
PATENT APPLICATION: US/09/554,531B      TIME: 16:20:02

Input Set : E:\238\_087US Amended Seq Listing (25-Oct-06).txt  
Output Set: N:\CRF4\10272006\I554531B.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:4; Xaa Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,19,20,21,22,23  
Seq#:4; Xaa Pos. 24,25,26,27,28,31,36,37,38,39  
Seq#:20; Xaa Pos. 6  
Seq#:21; Xaa Pos. 6  
Seq#:32; Xaa Pos. 10  
Seq#:33; Xaa Pos. 10  
Seq#:42; Xaa Pos. 14  
Seq#:43; Xaa Pos. 14  
Seq#:56; Xaa Pos. 22  
Seq#:57; Xaa Pos. 22  
Seq#:60; Xaa Pos. 23  
Seq#:61; Xaa Pos. 23  
Seq#:86; Xaa Pos. 31,36,37,38  
Seq#:87; Xaa Pos. 36,37,38  
Seq#:88; Xaa Pos. 31,36,37  
Seq#:89; Xaa Pos. 31,36  
Seq#:94; Xaa Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,19,20,21,22,23  
Seq#:94; Xaa Pos. 24,25,26,27,28,29,30,33,38,39,40,41  
Seq#:95; Xaa Pos. 1,26  
Seq#:96; Xaa Pos. 1,26  
Seq#:97; Xaa Pos. 1,26  
Seq#:98; Xaa Pos. 1,26  
Seq#:99; Xaa Pos. 1,27  
Seq#:100; Xaa Pos. 1,27  
Seq#:101; Xaa Pos. 1,27  
Seq#:102; Xaa Pos. 1,27  
Seq#:103; Xaa Pos. 27  
Seq#:104; Xaa Pos. 27  
Seq#:105; Xaa Pos. 27  
Seq#:106; Xaa Pos. 27  
Seq#:107; Xaa Pos. 28  
Seq#:108; Xaa Pos. 28  
Seq#:109; Xaa Pos. 28  
Seq#:110; Xaa Pos. 28

## VERIFICATION SUMMARY

DATE: 10/30/2006

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Input Set : E:\238 087US Amended Seq Listing (25-Oct-06).txt

Output Set: N:\CRF4\10272006\I554531B.raw

L:259 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0  
M:341 Repeated in SeqNo=4  
L:570 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0  
L:594 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0  
L:808 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0  
L:832 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0  
L:1008 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:0  
L:1032 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:0  
L:1287 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:56 after pos.:16  
L:1311 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57 after pos.:16  
L:1373 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60 after pos.:16  
L:1397 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:16  
L:1908 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:86 after pos.:16  
M:341 Repeated in SeqNo=86  
L:1938 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:87 after pos.:32  
L:1967 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:88 after pos.:16  
M:341 Repeated in SeqNo=88  
L:1999 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:89 after pos.:16  
M:341 Repeated in SeqNo=89  
L:2279 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:94 after pos.:0  
M:341 Repeated in SeqNo=94  
L:2311 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:95 after pos.:0  
M:341 Repeated in SeqNo=95  
L:2340 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:96 after pos.:0  
M:341 Repeated in SeqNo=96  
L:2369 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:97 after pos.:0  
M:341 Repeated in SeqNo=97  
L:2398 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:98 after pos.:0  
M:341 Repeated in SeqNo=98  
L:2427 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:99 after pos.:0  
M:341 Repeated in SeqNo=99  
L:2456 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:100 after pos.:0  
M:341 Repeated in SeqNo=100  
L:2485 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:101 after pos.:0  
M:341 Repeated in SeqNo=101  
L:2514 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:102 after pos.:0  
M:341 Repeated in SeqNo=102  
L:2541 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103 after pos.:16  
L:2565 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:104 after pos.:16  
L:2589 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:105 after pos.:16  
L:2613 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:106 after pos.:16  
L:2637 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:107 after pos.:16  
L:2661 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:108 after pos.:16  
L:2685 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:109 after pos.:16  
L:2709 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:110 after pos.:16